

Appl. No.: 10/565,034  
Amdt. dated February 11, 2008  
Reply to Office Action of November 9, 2007

## REMARKS/ARGUMENTS

The indication of allowable subject matter in claims 5, 9 – 13, and 17 – 18 is acknowledged with appreciation. In this response, claims 5, 9, 10, 11, 12 and 17 have been rewritten in independent form including all of the limitations of the base claim and any intervening claims. Therefore, these claims, as well as dependent claim 18 should be in condition for immediate allowance.

Claims 2 and 4 have been amended to make them clearer, without modifying their scope. Favorable reconsideration by the Examiner is requested.

Claims 1 – 4, 6 – 8 and 14 – 16 stand rejected under 35 USC 102(b) as being anticipated by Li et al. The Applicant disagrees with the Examiner's conclusion that Li et al. discloses all the features of claim 1. Indeed, Li et al. discloses producing a specimen including a first part of a first phase (the aluminum matrix) and a second part of a second phase (the K<sub>2</sub>O·6TiO<sub>2w</sub> whiskers). Li et al. also discloses measuring several deformation parameters ( $\varepsilon_{xx}$ ,  $\varepsilon_{yy}$ ,  $\varepsilon_{xy}$ ,  $\varepsilon_{zz}$ ) of said first phase (measurement points A and C both lie in the aluminum matrix). However, Li et al. fails disclosing the step of determining at least one mechanical parameter of the second phase (i.e. the K<sub>2</sub>O·6TiO<sub>2w</sub> whiskers) from said measurements performed within the *first* phase.

Otherwise stated, according to Li et al., measurements performed within the first phase (the matrix) only provide information on the mechanical parameters (stress and strain tensor components) of the first phase itself. The method disclosed by Li et al. provides no information on the mechanical parameters of the *second* phase. On the contrary, the method of present claim 1 involves determining mechanical parameters of the second phase based on deformation measurements performed on the first phase.

Therefore claim 1 is new and non-obvious with respect to Li et al. The claims which are dependent directly or indirectly from claim 1 are also allowable as each of them depends on a claim which is new and non-obvious. Moreover, at least claims 2, 3, 4, 13 and 18 are new and non-obvious by themselves.

With regard to claim 2, Li et al. does not teach using a plurality of samples differing from one another in respect of at least one geometrical property. The Examiner relies on table 1 for

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stating that Li et al. teaches using a plurality of samples. Actually, table 1 shows best fit parameters and strain components for two different measuring points (A and C) belonging to the same sample, and for two different *fitting methods*.

Regarding claim 3, Li et al. does not teach repeating the measuring step at at least two different temperatures. Li et al. does not even provide a temperature range. At page 1424 of this document, it is only reported that, in a different experiment, a sample has been cooled from 20 °C to -160°C. This does not mean that measurements have been performed at different temperatures. And, in any case, this cooling is not performed in the method described by Li et al.

Turning to claim 4, the Examiner does not cite any passage of Li et al. disclosing, or even suggesting, the additional features of claim 4, namely modeling strain relaxation in the sample and comparing the results of this modeling with measurement results in order to estimate, in an iterative way, at least one mechanical property of the second phase.

Indeed, no mechanical property is estimated by Li et al. The only mechanical property mentioned by this document is the modulus of elasticity of aluminum, which is used for computing stress components from the measured strain components (page 1423, line 5). But this property is not estimated from a measurement: it is simply taken from the literature.

In any case, only the modulus of elasticity of aluminum, i.e. of the *first phase* is considered, while claim 4 concerns the estimation of a property of the *second phase*, on which no direct measurement is performed. Moreover, Li et al. does not mention any *iterative* estimation.

For the reasons, Applicant request reconsideration by the Examiner, withdrawal of the rejection based upon Li et al. and formal notification of the allowability of all claims as now presented.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required

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therefor (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,



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